

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

#### **Listing Of Claims:**

1. (Currently Amended) A method of adding interactive functionality to a web-page comprising:

receiving a request for the web-page from a first user;

retrieving the requested web-page;

embedding script code within the requested web-page to add interactive functionality to the web-page; and

transmitting the requested web-page having the embedded script code to the first user;

wherein said embedding step, which is performed absent user editing, comprises

parsing the requested web-page to determine an appropriate location to

embed script code that is absent from the requested web page prior to said parsing.

2. (Previously Presented) A method as recited by claim 1, further comprising:

receiving a request for the requested web-page from a second user; and

transmitting the requested web-page having embedded script code to the second user, the script code enabling the first user and the second user to interact with each other while viewing the requested web-page.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

3. (Cancelled).

4. (Previously Presented) A method as recited by claim 1, wherein the web-page includes a header and wherein the appropriate location is in the header.

5. (Cancelled)

6. (Cancelled)

7. (Previously Presented) A method as recited by claim 1, wherein said receiving step comprises:

receiving first user account data from the first user; and  
determining, based on the first user account data, if the first user is authorized to  
access the requested web-page.

8. (Previously Presented) A method as recited by claim 2, wherein said receiving step comprises:

receiving second user account data from the second user; and  
determining, based on the second user account data, if the second user is  
authorized to access the requested web-page.

9. (Previously Presented) A method as recited by claim 2, wherein each of the first user and the second user have a computing device having a display on which the web-page is

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

displayed, the first user's computing device having a cursor control device to control movement of a cursor on the first user's display, and wherein the script code embedded within each user's web-page adds interactive functionality to the web page by displaying one or more movements of the first user's cursor on the web-page of the second user.

10. (Previously Presented) A method as recited by claim 2, wherein each of the first user and the second user have a computing device having a display on which the web-page is displayed, and wherein the script code embedded within the web-page of the first user and the second user adds interactive functionality to the web-page by:

analyzing the web page to assign a unique identifier to one or more elements of the web-page, so that the elements of the web-page of the first user and the second user are assigned the same identifiers;  
determining the identifier of the particular element that is the subject of actions by the first user;  
transmitting the identifier to the second user's computing device; and  
locating the corresponding element on the second user's web page by using the identifier, so that the actions of the first user can be communicated to the second user.

11. (Currently Amended) A method of facilitating interaction between a first user viewing a web-page and a second user viewing the web-page, said method comprising:  
providing the web-page to each of the first and second user, the web-page having embedded script code to provide interactive functionality to the web-page;  
receiving cursor coordinate data from one of the first or second user; and

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

transmitting the received cursor coordinate data to the other one of the first or second user;

wherein the script code is embedded absent user editing by parsing the requested web-page to determine an appropriate location to embed script code that is absent from the requested web page prior to said parsing.

12. (Previously Presented) A method as recited by claim 11, wherein the cursor coordinate data is point data or draw data.

13. (Previously Presented) A method as recited by claim 11, further comprising transmitting to one of the first or the second user, an identity for the other one of the first or the second user.

14. (Original) A method as recited by claim 11, wherein the first and second users are participants in a session, said method further comprising:

determining if a new user has joined the session; and

transmitting to each user participating in the session, an identity for the new user.

15. (Original) A method as recited by claim 11, wherein the first and second users are participants in a session, said method further comprising:

determining if a user has left the session; and

transmitting to each user participating in the session, an identity for the user that has left the session.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

16. (Currently Amended) A system for adding interactive functionality to a web-page requested by a first user having a computing device connectable to the Internet using an Internet browser on the first user's computing device, the Internet browser enabling the first user to cause the computing device to establish a connection to the Internet and to request and receive web-pages, said system comprising:

a server, the first user's computing device being connectable to said server using the Internet browser, said server being operable in connection with software loaded on the server for receiving a request from the first user for the web-page, said server further being operable in connection with the software for retrieving the requested web-page and embedding, absent user editing, script code within the requested web-page to add interactive functionality to the web-page, said server further being operable in connection with the software for transmitting the requested web-page having the embedded script code to the first user's computing device; wherein said server is further operable in connection with the software for embedding script code to parse ~~parsing~~ the requested web-page to determine an appropriate location to embed script code that is absent from the requested web page prior to said parsing.

17. (Previously Presented) A system as recited by claim 16, wherein said server is further operable in connection with the software on said server for receiving a request for the web-page from a second user having a computing device connectable to the Internet using an

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

Internet browser on the second user's computing device, the Internet browser enabling the second user to cause the computing device to establish a connection to the Internet and to request and receive web-pages, said server being further operable in connection with the software on said server for transmitting the requested web-page having the embedded script code to the second user's computing device, the script code enabling the first user and the second user to interact with each other while viewing the web-page.

18. (Cancelled)

19. (Cancelled)

20. (Previously Presented) A system as recited by claim 16, wherein said server is further operable in connection with the software for receiving first user account data from the first user, and wherein said server is further operable in connection with the software for determining if the first user is authorized to access the requested web-page.

21. (Previously Presented) A system as recited by claim 17, wherein said server is further operable in connection with the software for receiving second user account data from the second user and wherein said server is further operable in connection with the software for determining if the second user is authorized to access the requested web-page.

22. (Previously Presented) A system as recited by claim 17, wherein each of the first user's computing device and the second user's computing device has a cursor control device to

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

control movement of a cursor on a display of each of the first user's computing device and the second user's computing device, and wherein said server is further operable in connection with the software for adding interactive functionality to the web page by embedding script code within the web-page to display one or more movements of the first user's cursor on the web-page of the second user.

23. (Previously Presented) A system as recited by claim 17, wherein said server and said script code are further operable in connection with the software for adding interactive functionality to the web- page by:

analyzing the web page to assign a unique identifier to one or more elements of the web-page, so that the elements of the web-page of the first user and the second user are assigned the same identifiers;  
determining the identifier of the particular element that is the subject of actions by the first user;  
transmitting the identifier to the second user's computing device; and  
locating the corresponding element on the second user's web page by using the identifier, so that the actions of the first user can be communicated to the second user.

24. (Currently Amended) A system for facilitating interaction between a first user viewing a web-page and a second user viewing the web-page, said system comprising:  
a server operable in connection with software loaded on the server for providing the web-page to each of the first user and the second user, the web-page

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

having embedded, absent user editing, script code to provide interactive functionality to the web-page, said server and said script code being further operable in connection with the software for receiving cursor coordinate data from one of the first or second user, said server and said script code being further operable in connection with the software for transmitting the received cursor coordinate data to the other one of the first or second user; wherein said server is further operable in connection with the software for embedding said script code to parse ~~parsing~~ the requested web-page to determine an appropriate location to embed script code that is absent from the requested web page prior to said parsing.

25. (Previously Presented) The system as recited by claim 24, wherein the cursor coordinate data is point data or draw data.

26. (Previously Presented) The system as recited by claim 24, wherein said server is further operable in connection with software for transmitting to one of the first user or the second user, an identity for the other one of the first user or the second user.

27. (Previously Presented) A system as recited by claim 24, wherein the first and second users are participants in a session, said server being further operable in connection with software for determining if a new user has joined the session, and transmitting to each user participating in the session, an identity for the new user.



Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

28. (Previously Presented) A system as recited by claim 24, wherein the first and second users are participants in a session, said server being further operable in connection with software for determining if a user has left the session, and transmitting to each user participating in the session, an identity for the user that has left the session.

29. (Currently Amended) A computer readable medium comprising computer code for instructing one or more processors to add interactive functionality to a web-page by:

- receiving a request for the web-page from a first user;
- retrieving the requested web-page;
- embedding script code within the requested web-page to add interactive functionality to the web-page; and
- transmitting the requested web-page having the embedded script code to the first user;

wherein said embedding step, which is performed absent user editing, comprises

- parsing the requested web-page to determine an appropriate location to embed the script code that is absent from the requested web page prior to said parsing.

30. (Previously Presented) A computer readable medium as recited by claim 29, further comprising computer code for instructing one or more processors to add interactive functionality to a web-page by:

- receiving a request for the requested web-page from a second user; and

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

transmitting the requested web-page having the embedded script code to the second user, the script code enabling the first user and the second user to interact with each other while viewing the requested web-page.

31. (Currently Amended) A computer readable medium comprising computer code for instructing one or more processors to facilitate interaction between a first user viewing a web-page and a second user viewing the same web-page by:

providing the web-page to each of the first user and the second user, the web-page having embedded script code to provide interactive functionality to the web-page;

receiving cursor coordinate data from one of the first user or the second user; and transmitting the received cursor coordinate data to the other one of the first or the second user;

wherein the script code is embedded absent user editing by parsing web-page to determine an appropriate location to embed the script code that is absent from the requested web page prior to said parsing.

32. (Previously Presented) A method as recited by claim 1, wherein the embedding step further comprises storing the script code on a computing device of the first user prior to embedding the script code within the requested web-page.

33. (Previously Presented) A method as recited by claim 32, wherein the storing step further comprises downloading the script code for storage on the computing device.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

34. (Previously Presented) A method as recited by claim 2, wherein the embedding step further comprises storing the script code on a computing device of at least one of the first user and the second user prior to embedding the script code within the requested web-page.

35. (Previously Presented) A method as recited by claim 34, wherein the storing step further comprises downloading the script code for storage on the computing device.

36. (Previously Presented) A method as recited by claim 9, wherein the one or more movements of the first user's cursor are displayed on the second user's web page by:

determining the first user's cursor position by obtaining cursor coordinate data as

the first user causes the cursor to move over the displayed web-page; and

transmitting the cursor coordinate data over which the first user's cursor is

positioned to the second user so that the second user can perceive the first

user's cursor position on the displayed web page.

37. (Previously Presented) A method as recited by claim 36, wherein the cursor coordinate data is point data or draw data.

38. (Previously Presented) A method as recited by claim 37, wherein said draw data permits the second user to perceive drawing on the web-page performed by the first user.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

39. (Previously Presented) A method as recited by claim 37, wherein the script code further enables the first user to switch between point mode and draw mode.

40. (Previously Presented) A method as recited by claim 9, wherein the second user's computing device has a cursor control device to control movement of a cursor on the second user's display, and wherein the script code embedded within the web-page of the first user and the second user further adds interactive functionality to the web page by displaying one or more movements of the second user's cursor on the web-page of the first user.

41. (Previously Presented) A method as recited by claim 40, wherein the one or more movements of each user's cursor are displayed on the web page of the other user by:

determining each user's cursor position by obtaining cursor coordinate data as each user causes the cursor to move over the displayed web-page; and transmitting the cursor coordinate data over which each user's cursor is positioned to the other user so that the other user can perceive each user's cursor position on the displayed web page.

42. (Previously Presented) A method as recited by claim 41, wherein the cursor coordinate data is point data or draw data.

43. (Previously Presented) A method as recited by claim 42, wherein said draw data permits the first and second user to perceive drawing on the web-page performed by the other user.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

44. (Previously Presented) A method as recited by claim 42, wherein the script code further enables the first and second user to switch between point mode and draw mode.

45. (Previously Presented) A method as recited by claim 10, further comprising storing information regarding the relationship between the elements and the identifiers on the computing device of the first user and the second user.

46. (Previously Presented) A method as recited by claim 10, wherein one or more elements is identifiable by one or more HTML tags provided in the HTML code that defines the web-page, and the one or more HTML tags is assigned a unique identifier.

47. (Previously Presented) A method as recited by claim 10, wherein at least one element on the web-page is characterized by a bounding shape defined by the script code, and wherein the shape provides a reference point from which various parts of the element may be located on the web-page.

48. (Previously Presented) A method as recited by claim 10, wherein the analyzing step further comprises constructing a tree, wherein the nodes of the tree correspond to the elements of the web page, each node being assigned a unique identifier, and storing the tree in a data file on the computing device of the first user and the second user, the comparing step further comprises comparing the cursor coordinate data with the stored tree, and the locating step further comprises parsing the tree to locate the element corresponding to the identifier.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

49. (Previously Presented) A method as recited by claim 10, wherein the script code embedded within each user's web-page further adds interactive functionality to the web-page by:

- determining the identifier of the particular element that is the subject of actions by the second user;
- transmitting the identifier from the second user's computing device to the first user's computing device; and
- locating the element corresponding to the identifier received from the second user's computing device on the first user's web page, so that actions of the second user can be communicated to the first user.

50. (Previously Presented) A method as recited by claim 9, wherein the one or more movements of the first user's cursor are displayed on the second user's web page by:

- analyzing the web page to assign a unique identifier to one or more elements of the web-page, so that the elements of the web-page of the first user and the second user are assigned the same identifiers;
- storing each identifier;
- determining the first user's cursor position by obtaining cursor coordinate data as the first user causes the cursor to move over the displayed web-page;
- comparing the cursor coordinate data with the stored one or more identifiers to determine the element over which the first user's cursor is positioned;

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

transmitting the cursor coordinate data and identifier for the element over which  
the first user's cursor is positioned to the second user's computing device;  
and  
locating the corresponding element on the second user's web page by using the  
identifier, so that the second user can perceive the first user's cursor  
position on the displayed web-page.

51. (Previously Presented) A method as recited by claim 50, wherein the analyzing step further comprises constructing a tree, wherein the nodes of the tree correspond to the elements of the web page, each node being assigned a unique identifier, and storing the tree in a data file on the computing device of the first user and the second user, and the comparing step further comprises comparing the cursor coordinate data with the stored tree, and the locating step further comprises parsing the tree to locate the element corresponding to the identifier.

52. (Previously Presented) A method as recited by claim 51, wherein one or more elements is identifiable by one or more HTML tags provided in the HTML code that defines the web-page and one or more HTML tags is assigned a unique identifier.

53. (Previously Presented) A method as recited by claim 50, wherein one or more movements of the second user's cursor are displayed on the first user's web page by:  
determining the second user's cursor position by obtaining cursor coordinate data  
as the second user causes the cursor to move over the displayed web-page;

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

comparing the cursor coordinate data with the stored one or more identifiers to  
determine the element over which the second user's cursor is positioned;  
transmitting the cursor coordinate data and identifier for the element over which  
the second user's cursor is positioned to the first user's computing device;  
and  
locating the element corresponding to the identifier received from the second  
user's computing device on the first user's web-page, so that the first user  
can perceive the  
second user's cursor position on the displayed web-page.

54. (Previously Presented) A method of claim 11, further comprising displaying one or more movements of one of the first user's cursor or the second user's cursor on the web-page of the other user.

55. (Previously Presented) A method as recited by claim 54, wherein the received cursor coordinate data is one of the first user's cursor position or the second user's cursor position as the one of the first user or the second user causes the cursor to move over the displayed web-page.

56. (Previously Presented) A method of claim 12, wherein said draw data permits one of the first user or the second user to perceive drawing performed by the other one of the first user or the second user.



Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

57. (Previously Presented) A method of claim 11, further comprising:  
analyzing the web page to assign a unique identifier to one or more elements of the web-page, so that the elements of the web-page of the first user and the second user are assigned the same identifiers;  
determining the one of the first user's cursor position or the second user's cursor position from the received cursor coordinate data as the one of the first user or the second user causes the cursor to move over the displayed web-page;  
comparing the cursor coordinate data with the stored one or more identifiers to determine the element over which the one of the first user's cursor or the second user's cursor is positioned; and  
locating the corresponding element on the other one of the first user's web page or the second user's web page by using the identifier, so that the other one of the first user or the second user can perceive the cursor position on the displayed web-page.

58. (Previously Presented) A method as recited by claim 57, wherein the analyzing step further comprises constructing a tree, wherein the nodes of the tree correspond to the elements of the web page, each node being assigned a unique identifier, and storing the tree in a data file on the computing device of the first user and the second user, and the comparing step further comprises comparing the cursor coordinate data with the stored tree, and the locating step further comprises parsing the tree to locate the element corresponding to the identifier.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

59. (Previously Presented) A method as recited by claim 57, wherein one or more elements is identifiable by one or more HTML tags provided in the HTML code that defines the web-page and one or more HTML tags is assigned a unique identifier.

60. (Previously Presented) A method as recited by claim 11, further comprising storing the script code on a computing device of at least one of the first user or the second user prior to embedding the script code within the requested web-page.

61. (Previously Presented) A method as recited by claim 60, wherein the storing step further comprises downloading the script code for storage on the computing device.

62. (Previously Presented) A system as recited by claim 22, wherein said server and said script code are further operable in connection with the software to:

analyze the web page to assign a unique identifier to one or more elements of the

web-page, so that the elements of the web-page of the first user and the

second user are assigned the same identifiers;

store each identifier;

determine the first user's cursor position by obtaining cursor coordinate data as

the first user causes the cursor to move over the displayed web-page;

compare the cursor coordinate data with the stored one or more identifiers to

determine the element over which the first user's cursor is positioned;

transmit the cursor coordinate data and identifier for the element over which the

first user's cursor is positioned to the second user's computing device; and

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

locate the corresponding element on the second user's web page by using the identifier, so that the second user can perceive the first user's cursor position on the displayed web-page.

63. (Previously Presented) A system as recited by claim 62, wherein said server and said script code are further operable in connection with the software to construct a tree, wherein the nodes of the tree correspond to the elements of the web page, each node being assigned a unique identifier, and store the tree in a data file on the computing device of the first user and the second user, and compare the cursor coordinate data with the stored tree, and parse the tree to locate the element corresponding to the identifier.

64. (Previously Presented) A system as recited by claim 63, wherein one or more elements is identifiable by one or more HTML tags provided in the HTML code that defines the web-page and one or more HTML tags is assigned a unique identifier.

65. (Previously Presented) A system as recited by claim 62, wherein said server and said script code are further operable in connection with the software to:

determine the second user's cursor position by obtaining cursor coordinate data as the second user causes the cursor to move over the displayed web-page;  
compare the cursor coordinate data with the stored one or more identifiers to determine the element over which the second user's cursor is positioned;  
transmit the cursor coordinate data and identifier for the element over which the second user's cursor is positioned to the first user's computing device; and

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

locate the element corresponding to the identifier received from the second user's computing device on the first user's web-page, so that the first user can perceive the second user's cursor position on the displayed web-page.

66. (Previously Presented) A system as recited by claim 22, wherein said server and said script code are further operable in connection with the software to display the one or more movements of the first user's cursor on the second user's web page by:

determining the first user's cursor position by obtaining cursor coordinate data as the first user causes the cursor to move over the displayed web-page; and transmitting the cursor coordinate data over which the first user's cursor is positioned to the second user so that the second user can perceive the first user's cursor position on the displayed web page.

67. (Previously Presented) A system as recited by claim 66, wherein the cursor coordinate data is point data or draw data.

68. (Previously Presented) A system as recited by claim 67, wherein said draw data permits the second user to perceive drawing on the web-page performed by the first user.

69. (Previously Presented) A system as recited by claim 22, wherein said server is further operable in connection with the software for adding interactive functionality to the web page by embedding script code within the web-page to display one or more movements of the second user's cursor on the web-page of the first user.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

70. (Previously Presented) A system as recited by claim 69, wherein said server and said script code are further operable in connection with the software to display the one or more movements of each user's cursor on the web page of the other user by:

determining each user's cursor position by obtaining cursor coordinate data as each user causes the cursor to move over the displayed web-page; and transmitting the cursor coordinate data over which each user's cursor is positioned to the other user so that each user can perceive the other user's cursor position on the displayed web page.

71. (Previously Presented) A system as recited by claim 70, wherein the cursor coordinate data is point data or draw data.

72. (Previously Presented) A system as recited by claim 71, wherein said draw data permits the first and second user to perceive drawing on the web-page performed by the other user.

73. (Previously Presented) A system as recited by claim 22, wherein said server is further operable in connection with the software to store the script code on a computing device of one of the first user or the second user prior to embedding the script code within the requested web-page.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

74. (Previously Presented) A system as recited by claim 73, wherein the script code is downloaded for storage on the computing device.

75. (Currently Amended) A method of adding interactive functionality to a web-page comprising:

receiving a request for the web-page from a first user;

retrieving the requested web page;

inserting, within the requested web-page, a reference to script code to add

interactive functionality to the requested web-page; and

transmitting the requested web-page having the inserted reference to the first user;

wherein said inserting step is performed absent user editing and comprises parsing

the requested web-page to determine an appropriate location to insert the

reference that is absent from the requested web page prior to said parsing.

76. (Previously Presented) A method as recited by claim 75, further comprising:

receiving a request for the requested web-page from a second user; and

transmitting the requested web-page having the inserted reference to the second

user, the script code enabling the first user and the second user to interact

with each other while viewing the requested web-page.

77. (Previously Presented) A method as recited by claim 75, further comprising using the reference to embed the script code within the requested web page.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

78. (Cancelled)

79. (Previously Presented) A method as recited by claim 75, wherein the web-page includes a header and wherein the appropriate location is in the header.

80. (Previously Presented) A method as recited by claim 76, further comprising using the reference to embed the script code within the requested web page.

81. (Cancelled)

82. (Previously Presented) A method as recited by claim 80, wherein the web-page includes a header and wherein the appropriate location is in the header.

83. (Previously Presented) A method as recited by claim 75, wherein said receiving step comprises:

receiving first user account data from the first user; and

determining, based on the first user account data, if the first user is authorized to access the requested web-page.

84. (Previously Presented) A method as recited by claim 76, wherein said receiving step comprises:

receiving second user account data from the second user; and

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

determining, based on the second user account data, if the second user is  
authorized to access the requested web-page.

85. (Previously Presented) A method as recited by claim 80, further comprising  
storing the script code on at least one of the first user's computing device and the second user's  
computing device prior to using the reference to embed the script code within the requested web-  
page.

86. (Previously Presented) A method as recited by claim 85, wherein the storing step  
further comprises downloading the script code for storage on the computing device.

87. (Previously Presented) A method as recited by claim 80, wherein each of the first  
user and the second user have a computing device having a display on which the web-page is  
displayed, the first user's computing device having a cursor control device to control movement  
of a cursor on the first user's display and wherein the script code embedded within each user's  
web-page adds interactive functionality to the web page by displaying one or more movements  
of the first user's cursor on the web-page of the second user,

88. (Previously Presented) A method as recited by claim 87, wherein the one or more  
movements of the first user's cursor are displayed on the second user's web page by:

determining the first user's cursor position by obtaining cursor coordinate data as  
the first user causes the cursor to move over the displayed web-page; and



Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

transmitting the cursor coordinate data over which the first user's cursor is positioned to the second user so that the second user can perceive the first user's cursor position on the displayed web page.

89. (Previously Presented) A method as recited by claim 88, wherein the cursor coordinate data is point data or draw data.

90. (Previously Presented) A method as recited by claim 89, wherein said draw data permits the second user to perceive drawing on the web-page performed by the first user.

91. (Previously Presented) A method as recited by claim 89, wherein the script code further enables the first user to switch between point mode and draw mode.

92. (Previously Presented) A method as recited by claim 87, wherein the second user's computing device has a cursor control device to control movement of a cursor on the second user's display, and wherein the script code embedded within the web-page of the first user and the second user further adds interactive functionality to the web page by displaying one or more movements of the second user's cursor on the web-page of the first user.

93. (Previously Presented) A method as recited by claim 92, wherein the one or more movements of each user's cursor are displayed on the web page of the other user by:

determining each user's cursor position by obtaining cursor coordinate data as each user causes the cursor to move over the displayed web-page; and

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

transmitting the cursor coordinate data over which each user's cursor is positioned to the other user so that each user can perceive the other user's cursor position on the displayed web page.

94. (Previously Presented) A method as recited by claim 93, wherein the cursor coordinate data is point data or draw data.

95. (Previously Presented) A method as recited by claim 94, wherein said draw data permits the first and second user to perceive drawing on the web-page performed by the other user.

96. (Previously Presented) A method as recited by claim 94, wherein the script code further enables the first and second user to switch between point mode and draw mode.

97. (Previously Presented) A method as recited by claim 80, wherein each of the first user and the second user have a computing device having a display on which the web-page is displayed, and wherein the script code embedded within web-page of the first user and the second user adds interactive functionality to the web-page by:

analyzing the web page to assign a unique identifier to one or more elements of the web-page, so that the elements of the web-page of the first user and the second user are assigned the same identifiers;  
determining the identifier of the particular element that is the subject of actions by the first user;

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

transmitting the identifier to the second user's computing device; and  
locating the corresponding element on the second user's web page by using the  
identifier, so that the actions of the first user can be communicated to the  
second user.

98. (Previously Presented) A method as recited by claim 97, further comprising  
storing information regarding the relationship between the elements and the identifiers on the  
computing device of the first user and the second user.

99. (Previously Presented) A method as recited by claim 97, wherein one or more  
elements is identifiable by one or more HTML tags provided in the HTML code that defines the  
web-page, and the one or more HTML tags is assigned a unique identifier.

100. (Previously Presented) A method as recited by claim 97, wherein at least one  
element on the web-page is characterized by a bounding shape defined by the script code, and  
wherein the shape provides a reference point from which various parts of the element may be  
located on the web-page.

101. (Previously Presented) A method as recited by claim 97, wherein the analyzing  
step further comprises constructing a tree, wherein the nodes of the tree correspond to the  
elements of the web page, each node being assigned a unique identifier, and storing the tree in a  
data file on the computing device of the first user and the second user, and the comparing step

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

further comprises comparing the cursor coordinate data with the stored tree, and the locating step further comprises parsing the tree to locate the element corresponding to the identifier.

102. (Previously Presented) A method as recited by claim 97, wherein the script code embedded within each user's web-page further adds interactive functionality to the web-page by:

- determining the identifier of the particular element that is the subject of actions by the second user;
- transmitting the identifier from the second user's computing device to the first user's computing device; and
- locating the element corresponding to the identifier received from the second user's computing device on the first user's web page, so that actions of the second user can be communicated to the first user.

103. (Previously Presented) A method as recited by claim 87, wherein the one or more movements of the first user's cursor are displayed on the second user's web page by:

- analyzing the web page to assign a unique identifier to one or more elements of the web-page, so that the elements of the web-page of the first user and the second user are assigned the same identifiers;
- storing each identifier;
- determining the first user's cursor position by obtaining cursor coordinate data as the first user causes the cursor to move over the displayed web-page;
- comparing the cursor coordinate data with the stored one or more identifiers to determine the element over which the first user's cursor is positioned;

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

transmitting the cursor coordinate data and identifier for the element over which  
the first user's cursor is positioned to the second user's computing device;  
and  
locating the corresponding element on the second user's web page by using the  
identifier, so that the second user can perceive the first user's cursor  
position on the displayed web-page.

104. (Previously Presented) A method as recited by claim 103, wherein the analyzing step further comprises constructing a tree, wherein the nodes of the tree correspond to the elements of the web page, each node being assigned a unique identifier, and storing the tree in a data file on the computing device of the first user and the second user, and the comparing step further comprises comparing the cursor coordinate data with the stored tree, and the locating step further comprises parsing the tree to locate the element corresponding to the identifier.

105. (Previously Presented) A method as recited by claim 104, wherein one or more elements is identifiable by one or more HTML tags provided in the HTML code that defines the web-page and one or more HTML tags is assigned a unique identifier.

106. (Previously Presented) A method as recited by claim 103, wherein the one or more movements of each user's cursor are displayed on the other user's web page by:  
determining the second user's cursor position by obtaining cursor coordinate data  
as the second user causes the cursor to move over the displayed web-page;

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

comparing the cursor coordinate data with the stored one or more identifiers to  
determine the element over which the second user's cursor is positioned;  
transmitting the cursor coordinate data and identifier for the element over which  
the second user's cursor is positioned to the first user's computing device;  
and  
locating the element corresponding to the identifier received from the second  
user's computing device on the first user's web-page, so that the first user  
can perceive the second user's cursor position on the displayed web-page.

107. (Currently Amended) A system for adding interactive functionality to a web-page requested by a first user having a computing device connectable to the Internet using an Internet browser on first user's computing device, the Internet browser enabling the first user to cause the computing device to establish a connection to the Internet and to request and receive web-pages, said system comprising:

a server, the first user computing device being connectable to said server using the Internet browser, said server being operable in connection with software loaded on the server for receiving a request from the first user for the web-page, said server further being operable in connection with the software for retrieving the requested web-page and inserting, within the requested web-page and absent user editing, a reference to script code to add interactive functionality to the web-page, said server further being operable in connection with the software for transmitting the requested web-page having the inserted reference to the first user's computing

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

device; wherein said server is further operable in connection with the software for inserting the reference to parse parsing the requested web-page to determine an appropriate location to insert the reference that is absent from the requested web page prior to said parsing.

108. (Currently Amended) A computer readable medium comprising computer code for instructing one or more processors to add interactive functionality to a web-page by:

receiving a request for the web-page from a user;

retrieving the requested web-page;

inserting, within the requested web-page, a reference to script code to add

interactive functionality to the requested web-page; and

transmitting the requested web-page having the inserted reference to the user;

wherein said inserting step, which is performed absent user editing, comprises

parsing the requested web-page to determine an appropriate location to

insert the reference that is absent from the requested web page prior to

said parsing.

109. (Cancelled)

110. (Previously Presented) The computer readable medium as recited by claim 108, further comprising storing the script code on a computing device of the user prior to using the reference to embed the script code within the requested web-page.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

111. (Currently Amended) A computer readable medium comprising computer code for instructing one or more processors to facilitate interaction between a first user viewing a web-page and a second user viewing the same web-page by:

providing the web-page to each of the first user and the second user, the web-page

having a reference to script code inserted therein to provide interactive functionality to the web-page;

using the reference to embed the script code within the web-page;

receiving cursor coordinate data from one of the first or second user; and

transmitting the received cursor coordinate data to the other one of the first or second user;

wherein the reference is inserted absent user editing by parsing the requested web-page to determine an appropriate location to insert the reference that is absent from the requested web page prior to said parsing.

112. (Currently Amended) A system for facilitating interaction between a first user viewing a web-page and a second user viewing the web-page, said system comprising:

a server operable in connection with software loaded on the server for providing

the web-page to each of the first user and the second user, the web-page

having a reference to script code inserted therein to provide interactive

functionality to the web-page, said server being further operable in

connection with the software for using the reference to embed the script

code within web-page; said server and said script code being further

operable in connection with the software for receiving cursor coordinate



Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

data from one of the first or second user, said server and said script code being further operable in connection with the software for transmitting the received cursor coordinate data to the other one of the first or second user; wherein said server is further operable in connection with the software for inserting the reference absent user editing by parsing the requested web- page to determine an appropriate location to insert the reference that is absent from the requested web page prior to said parsing.

113. (Previously Presented) A method as recited by claim 47, the first user's computing device having a cursor control device to control movement of a cursor on the first user's display, and wherein the script code further adds interactive functionality to display the position of the first user's cursor within a particular element on the web-page of the second user by:

determining a particular portion of an element to which the first user's cursor is pointing by obtaining cursor coordinate data corresponding to the position of the first user's cursor within the particular element by obtaining the first user's cursor position relative to a reference point associated with the bounding shape on the first user's web page;

transmitting the identifier for the particular element along with the relative cursor coordinate data to the second user's computing device; and

locating the position of the first user's cursor relative to the corresponding element on the second user's web page by using the identifier to determine the corresponding element and applying the relative cursor coordinate data to

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

a corresponding reference point associated with a bounding shape associated with the corresponding element on the second user's web page, so that the position of the first user's cursor can be perceived by the second user.

114. (Previously Presented) A method as recited by claim 100, the first user's computing device having a cursor control device to control movement of a cursor on the first user's display, and wherein the script code further adds interactive functionality to display the position of the first user's cursor within a particular element on the web-page of the second user by:

determining a particular portion of an element to which the first user's cursor is pointing by obtaining cursor coordinate data corresponding to the position of the first user's cursor within the particular element by obtaining the first user's cursor position relative to a reference point associated with the bounding shape on the first user's web page;  
transmitting the identifier for the particular element along with the relative cursor coordinate data to the second user's computing device; and  
locating the position of the first user's cursor relative to the corresponding element on the second user's web page by using the identifier to determine the corresponding element and applying the relative cursor coordinate data to a corresponding reference point associated with a bounding shape associated with the corresponding element on the second user's web page,

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

so that the position of the first user's cursor can be perceived by the second user.

115. (Previously Presented) A method as recited by claim 2, wherein the same script code is embedded within the web-page requested by the first user and the second user.

116. (Previously Presented) A method as recited by claim 2, wherein the script code embedded within the web-page requested by the first user differs from the script code embedded within the web-page requested by the second user.

117. (Previously Presented) A method as recited by claim 11, wherein the same script code is embedded within the web-page provided to the first user and the second user.

118. (Previously Presented) A method as recited by claim 11, wherein the script code embedded within the web-page provided to the first user differs from the script code embedded within the web-page provided to the second user.

119. (Previously Presented) A system as recited by claim 17, wherein the same script code is embedded within the web-page requested by the first user and the second user.

120. (Previously Presented) A system as recited by claim 17, wherein the script code embedded within the web-page requested by the first user differs from the script code embedded within the web-page requested by the second user.

Appl. No. 09/916,543  
Amendment and Response to Office Action

Docket No. 85804-013500

121. (Previously Presented) A method as recited by claim 76, wherein the same reference is inserted within the web-page requested by the first user and the second user.

122. (Previously Presented) A method as recited by claim 76, wherein the reference inserted within the web-page requested by the first user differs from the reference inserted within the web-page requested by the second user.

123. (Previously Presented) A method as recited by claim 80, wherein the same script code is embedded within the web-page requested by the first user and the second user.

124. (Previously Presented) A method as recited by claim 80, wherein the script code embedded within the web-page requested by the first user differs from the script code embedded within the web-page requested by the second user.